

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) A Mg-based ferrite material having a composition of formula (1):



wherein a, b, and c satisfy

$$0.10 \leq b/(b+c/2) \leq 0.85 \text{ and}$$

$$0 \leq R(\text{Ca}) \leq 0.10,$$

wherein  $R(\text{Ca})$  is expressed as

$$R(\text{Ca}) = a \times F_w(\text{CaO}) / (a \times F_w(\text{CaO})$$

$$+ b \times F_w(\text{MgO}) + (c/2) \times F_w(\text{Fe}_2\text{O}_3))$$

( $F_w(A)$ : formula weight of A); and

d is determined by oxidation numbers of Ca, Mg and Fe;

wherein said Mg-based ferrite material has a saturation magnetization in the range of 30-80 emu/g,

wherein said Mg-based ferrite material has a

dielectric breakdown voltage in the range of 1.0-5.0 kV.

2. (Original) A Mg-based ferrite material as claimed in claim 1, wherein b and c satisfy  $0.30 \leq b/(b+c/2) \leq 0.70$ .

3. (Currently Amended) A Mg-based ferrite material as claimed in claim 1-~~or claim 2~~,

wherein said Mg-based ferrite material has an average particle diameter in the range of 0.01-150  $\mu\text{m}$ .

4. (Original) An electrophotographic development carrier, which comprises a Mg-based ferrite material according to any of claims 1-3.

5. (Original) An electrophotographic development carrier, which comprises a Mg-based ferrite material according to any of claims 1-3,

wherein said Mg-based ferrite material is coated with resin.

6. (Currently Amended) An electrophotographic developer, which comprises an electrophotographic development carrier according to claim 4-~~or 5~~, and a toner.

7. (Original) An electrophotographic developer as claimed in claim 6,

wherein the ratio of the toner to the carrier by weight is in the range of 2-40 wt%.

8. (Currently Amended) A process for producing a Mg-based ferrite carrier according to ~~any of claims 1-3~~ claim 1, which comprises ~~the steps of~~:

- i) mixing raw materials;
- ii) sintering the mixed raw materials to grow particles, wherein a maximum temperature is in the range of 800-1500 °C; and
- iii) heating the sintered raw materials under an oxygen-containing atmosphere to condition properties of the particles, wherein a maximum temperature is in the range of 300-1000 °C;

9. (Original) A process for producing a Mg-based ferrite carrier as claimed in claim 8,

wherein an oxygen concentration of the atmosphere in step iii) is higher than that in step ii).

10. (Currently Amended) A process for producing a Mg-based ferrite carrier as claimed in claim 8 or ~~claim 9~~,

wherein the atmosphere in step iii) is an inert gas atmosphere having an oxygen concentration of 0.05-25.0 vol.% on the basis of the total amount of the gases contained in the atmosphere.

11. (Currently Amended) A process for producing a Mg-based ferrite carrier as claimed in any one of claims 8-10,  
wherein the atmosphere in step ii) is an inert gas atmosphere having an oxygen concentration of 0.001-10.0 vol.% on the basis of the total amount of the gases contained in the atmosphere.

12. (Currently Amended) A process for producing a Mg-based ferrite carrier as claimed in ~~any of claims 8-11~~  
claim 8,  
wherein step i) of mixing raw materials comprises steps of:

preparing a slurry containing a Mg-containing compound and a Fe-containing compound; and drying the slurry for granulation.

13. (Original) A process for producing a Mg-based ferrite carrier according to claim 12,  
wherein the slurry comprising a Mg-containing

compound and a Fe-containing compound further comprises a Ca-containing compound.

14. (Original) A process for producing a Mg-based ferrite carrier according to claim 12 or 13,

wherein the slurry comprising a Mg-containing compound and a Fe-containing compound further comprises a binder,

wherein the content of the binder is in the range of 0.1-5 % by weight, based on the total amount of the raw materials in the slurry.

15. (New) A Mg-based ferrite material as claimed in claim 2,

wherein said Mg-based ferrite material has an average particle diameter in the range of 0.01-150  $\mu\text{m}$ .

16. (New) An electrophotographic development carrier, which comprises a Mg-based ferrite material according to claim 15.

17. (New) An electrophotographic development carrier, which comprises a Mg-based ferrite material according to claim 16,

wherein said Mg-based ferrite material is coated with resin.

18. (New) An electrophotographic developer, which comprises an electrophotographic development carrier according to claim 17, and a toner.

19. (New) (Currently Amended) A process for producing a Mg-based ferrite carrier as claimed in claim 9,

wherein the atmosphere in step iii) is an inert gas atmosphere having an oxygen concentration of 0.05-25.0 vol.% on the basis of the total amount of the gases contained in the atmosphere.

20. (New) A process for producing a Mg-based ferrite carrier as claimed in claim 19,

wherein the atmosphere in step ii) is an inert gas atmosphere having an oxygen concentration of 0.001-10.0 vol.% on the basis of the total amount of the gases contained in the atmosphere.